

DETAILED ACTION

Specification

1. The substitute specification filed 13 October 2011 has been entered. However for future reference, Applicant is cautioned that the style/word color currently being used for the various amendments is difficult to read. The struck-through and underlined words are extremely light and it is unclear which words are added, deleted, and at which locations. 37 C.F.R. § 1.52(a)(iv) requires that papers that are to become a part of the permanent U.S. Patent and Trademark Office records must be in permanent dark ink or its equivalent. M.P.E.P. § 714.07, emphasis added. To avoid misunderstanding, it is recommended that Applicant use a clearer style or a darker word color for struck-through and underlined words in future Amendments.

Claim Interpretation

2. The language of claim 3, as amended, invokes the requirements of 35 U.S.C. § 112, sixth paragraph. A claim limitation is presumed to invoke 35 U.S.C. § 112, sixth paragraph, if it meets the following three-prong analysis: (A) the claim limitations must use the phrase “means for” or “step for”; (B) the “means for” or “step for” must be modified by functional language; and (C) the phrase “means for” or “step for” must not be modified by sufficient structure, material, or acts for achieving the specified function. M.P.E.P. § 2181.

3. Amended claim 3 recites a “carrier solution supply means”. This limitation satisfies the three-prong analysis and thus invokes 35 U.S.C. § 112, sixth paragraph. Accordingly, the “carrier solution supply means” is construed to cover a carrier solution reservoir, a pipe, a pump and equivalents thereof (Specification at paragraph [0026]).

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. § 103(a) that forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 4, 6, 11, and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Spence *et al.* (U.S. Pat. No. 6,540,895), previously cited.
6. Regarding claim 1, Spence *et al.* teach a cell sorter comprising a sample inlet channel, a cell detector, and outlet channels disposed downstream of the detector, which meets the claimed limitation of an “acceptor that receives the sample solution that is discharged from the termination side”. The inlet channel may be connected to a reservoir, which meets the claimed limitation of a “sample solution supply means” and the outlet channels may terminate in a container for the collection of cells (Spence *et al.* at column 9, lines 48-57). In one embodiment, Spence *et al.* teach that in response to the signal for the cell detector, flow control is activated and that the force and direction of the flow can be controlled by valves or electrodes (Spence *et al.* at column 14, line 66 – column 15, line 3).
7. Spence *et al.* do not teach that the acceptor comprises a plurality of acceptors and the positional relationship between a sample solution discharge portion at the termination of the first flow path and the respective acceptors is relatively movable. However, duplication of parts is *prima facie* obvious, as is making elements adjustable or continuous. M.P.E.P. § 2144.04.

8. Regarding claim 2, Spence *et al.* teach an electromagnetic or mechanical switch, which meets the claimed limitation of a “controller configured to control the sample solution separating means” (Spence *et al.* at column 4, lines 51-53).
9. Regarding claim 3, not only is duplication and rearrangement of parts is *prima facie* obvious (M.P.E.P. § 2144.04), Spence *et al.* also teach that the main flow channel is typically in communication with other channels (Spence *et al.* at column 8, lines 16-26). Additionally, Spence *et al.* teach that the device can contain a reservoir at the inlet region and that a carrier fluid is supplied to the inlet region (Spence *et al.* at column 7, line 66-67 and column 14, lines 63-65).
10. Regarding claim 4, Spence *et al.* teach that the cells are passed through a filter before being sorted (Spence *et al.* at column 29, lines 51-52).
11. Regarding claim 6, the duplication of parts is *prima facie* obvious. M.P.E.P. § 2144.04.
12. Regarding claim 11, while Spence *et al.* do not explicitly teach a separate pressure or flow-rate sensor, Spence *et al.* teach that the flow-rate is used to determine the sorting delay period (Spence *et al.* at column 25, lines 5-14). In other words, Spence *et al.* implicitly teach a flow-rate sensor. Moreover, as explained *supra* Spence *et al.* teach that the pressure and flow are controlled in response to input from the detector. In other words, the detector serves as a pressure and flow-rate sensor. Assuming, *arguendo*, that Spence *et al.* do not implicitly teach a flow-rate sensor or that the detector is not a pressure and flow-rate sensor, it would be *prima facie* obvious for one of ordinary skill in the art to modify the teachings of Spence *et al.* to include a separate pressure or flow-rate sensor because it would provide additional data for better

control of the pressure or flow-rate, which would result in better sorting of the cells (Spence *et al.* at column 37, line 58 – column 38, line 7).

13. Regarding claim 12, it is well within the abilities of one of ordinary skill in the art to use an AC-power supply because AC-power supplies are notoriously well known.

Response to Arguments

14. Applicant's arguments filed 13 October 2011 have been fully considered but are not persuasive.

15. In response to Applicant's argument that Spence *et al.* do not teach a plurality of acceptors, as explained *supra*, it would be *prima facie* obvious for one of ordinary skill in the art to use multiple acceptors instead of one acceptor because duplication of parts is *prima facie* obvious. M.P.E.P. § 2144.04. Applicant's argument that Spence *et al.* do not teach that the positional relations between the sample solution discharge portion at the termination of the first flow path and the respective acceptors are relatively movable is either an intended use of the claimed device or a manner of operating the claimed device, neither of which distinguish the claimed device from the prior art. Apparatus claims cover what a device is, not what a device does. M.P.E.P. § 2114, emphasis in original. Furthermore, making elements adjustable, *i.e.*, moveable, is *prima facie* obvious to one of ordinary skill in the art. M.P.E.P. § 2144.04.

Conclusion

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 C.F.R. § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GAUTAM PRAKASH whose telephone number is 571-270-3030. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday from 8:30 am to 7:00 pm, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Marcheschi can be reached on 571-272-1374. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the

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automated information system, please call 800-786-9199 (in USA or CANADA) or 571-272-1000.

/G.P./

Examiner, Art Unit 1775

/Nathan A Bowers/

Primary Examiner, Art Unit 1775